

ABSTRACT OF THE DISCLOSURE

A fuel cell system and a method of operating same are provided. The fuel cell system includes a fuel cell for driving a load, at least one fuel cell peripheral, a device for measuring at least one fuel cell operation characteristic, and at least one controller for controlling the operation of at
5 least one fuel cell peripheral based on the at least one fuel cell operation characteristic. The fuel cell operation characteristic is divided into at least two ranges, and operation of at least one fuel cell is controlled to provide it with a respective operational characteristic for each range of operation of the fuel cell system.